

REMARKS

Claims 6, 8-10 and 13 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite. The claims have been amended to correct any indefiniteness.

Claims 1-15, 19-27, 29-32, 34-37, 39, 40, 42 43 and 45-48 have been rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Muys et al. '472. This rejection is respectfully traversed.

Muys et al. does not teach gelatin and polythiophene combined in the same layer, as is taught by the Applicants. Where that reference teaches the use of gelatin (col. 8, line 16), the gelatin is in a layer separate from the layer with polythiophene.

Muys et al. avoids the combination in the same layer for a very practical reason. It is known in the art that while polythiophene works well with most polymers to provide good conductivity, it provides poor conductivity when combined with gelatin. For example, a Comparative Example (col. 10, line 63 to col. 11, line3) in Majumdar '655, cited by Examiner, shows that polythiophene combined with gelatin provides poor conductivity. The gelatin exemplified in Majumdar is a modified gelatin. However, such modification is expensive and may negatively impact the physical properties of the gelatin.

The Applicant has amended the claims to recite gelatin. Foundation for the amendment can be found in Example 1 and throughout the Examples, also at page 12, lines 19-20 of the specification. As amended, the claims avoid the reference and so the rejection should be withdrawn.

Claims 38-41, 44, 47 and 48 have been rejected under 35 U.S.C. 103(a) as unpatentable over the combination of Majumdar et al. '655 and Muys et al. '472. This rejection is respectfully traversed.

The Examiner contends that Muys combined with Majumdar teach various types of imaging elements with a antistat layers similar to the Applicant's. Applicants disagree, especially with respect to the amended claims which now recite gelatin. The arguments presented above are reiterated here.

Moreover, Muys et al. describes a “latex polymer with hydrophilic functionality” (col. 6, line 14). This is not the same as a hydrophilic polymer and is certainly not intended to include gelatin. Muys et al. defines “latex polymer with hydrophilic functionality” at col. 3, lines 53 to 58. What the reference describes here is a polymer particle that has a small amount of a hydrophilic monomer. Further, the exemplary compounds described at col. 7, lines 4-14, contain only 1-5% of a comonomer containing a hydrophilic group. As such, the polymer particle is still basically hydrophobic and certainly is different from gelatin. Muys et al. never suggests or exemplifies gelatin and Majumdar et al. teaches against unmodified gelatin in this layer. The references contemplate a different type of material. The rejection should be withdrawn with respect to the amended claims.

Claims 1-28, 30-32, 38, 41-43 and 45-48 have been rejected under 35 U.S.C. 103(a) as unpatentable over the combination of Jonas et al. ‘515 and Krafft et al. ‘981. This rejection is respectfully traversed in so far as it may be maintained against the amended claims.

The Examiner argues that Krafft et al. (col 2, ll. 55-59) teaches that polymeric binders can be suspendible or soluble in water and that Jonas et al. teaches a conductive coating containing polythiophene, as in the present application; therefore it is would allegedly be obvious to combine the two teachings to arrive at the Applicant’s antistat layer that contains water soluble binders and conductivity enhancers and that provide good conductivity.


However, there is no motivation to combine the references as suggested by the Examiner. Data in Krafft et al. (Table 3) shows that already, without a conductivity enhancing agent, there is good conductivity demonstrated. Hence, there is no reason to combine the references to enhance conductivity. The problem to be solved in the reference is different from the Applicant’s problem. The rejection should be withdrawn.

Claims 1-48 have been rejected under 35 U.S.C. 103(a) as unpatentable over the combination of Jonas et al. ‘515 and Krafft et al. ‘981 as applied immediately above and further in view of Majumdar et al. ‘655. This rejection is traversed for reasons already stated above. The rejection should be withdrawn in view of the amended claims.

The Applicant has amended the claims and presented arguments. The claims are believed to be now in condition for allowance and an early notice to that effect is earnestly solicited.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page(s) is captioned "**Version With Markings To show Changes Made.**"

Respectfully submitted,



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Enclosures: Letter to the Draftsperson
Copies of Formal Drawings

Version With Markings To Show Changes Made

In the Specification:

The paragraph beginning on page 1, line 7 has been amended as set forth below:

This application relates to commonly assigned copending application Serial No. 10/036,126[_____] (Docket No. 83727), filed simultaneously herewith. This copending application is incorporated by reference herein for all that they contain.

The following paragraph has been added on page 10, after line 10.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shows the percentage of Baytron in the sublayer.

Figure 2 shows the percentage of relative humidity in the sublayer.

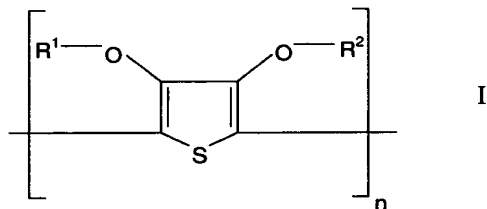
Please delete Fig. 1 and Fig. 2, pages 25 and 26 as part of the Specification and attach the figures after the Abstract without page numbers.

In the Claims:

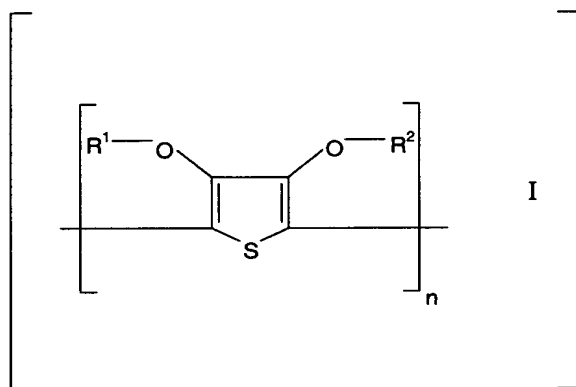
1. (Once Amended) An imaging material comprising a support having disposed thereon:

- a) at least one image-forming layer, and
- b) at least one transparent electrically conductive antistatic layer that comprises electronically conductive polymer particles, a neutral-charge conductivity enhancer, and a [hydrophilic] polymeric binder comprising gelatin or gelatin derivatives.

6. (Twice Amended) The imaging material of claim 1 wherein said antistatic layer comprises electronically conductive polymer particles of a polythiophene present in a cationic form with a polyanion, said polythiophene comprising recurring units defined by the following Formula I wherein n is about 5 to 1000 and wherein R₁ and R₂ are independently hydrogen or a substituted or unsubstituted alkyl group having 1 to 4 carbon atoms, or together form a substituted or unsubstituted group or a substituted or unsubstituted 1,2-cyclohexylene group:

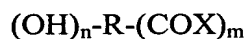


8. (Twice Amended) The imaging material of claim 1 wherein



said neutral-charge conductivity enhancer is:

(A) represented by the following Formula II:



II

wherein m and n are independently an integer of from 1 to 20, R is an alkylene group having 2 to 20 carbon atoms, an arylene group having 6 to 14 carbon atoms in the arylene chain, a pyran group, or a furan group, and X is -OH or -NYZ, wherein Y and Z are independently hydrogen or an alkyl group, or

(B) a sugar, sugar derivative, polyalkylene glycol, or glycerol compound.

(C) is selected from the group consisting of N-methylpyrrolidone, pyrrolidone, caprolactam, N-methyl caprolactam, or N-octylpyrrolidone.

Claims 15, 16, 17 and 18 have been cancelled.

In the Abstract:

The paragraph on page 35 has been amended as set forth below:

An imaging material comprising a support having disposed thereon: a) at least one image-forming layer, and b) at least one transparent electrically conductive antistatic layer that comprises electronically conductive polymer particles, a neutral-charge conductivity enhancer, and a [hydrophilic] polymeric binder comprising gelatin or gelatin derivatives.